

# ABSTRACT OF THE DISCLOSURE

A way of testing a wavelength division multiplexed (WDM) system without requiring connection to data source/sink equipment. A test signal is introduced onto a light path of interest in the system, and the test signal is monitored downstream for signal integrity. Lack of signal integrity is used to identify a fault in the lightpath. Alternatively, optical loopbacks may be used to localize and identify a fault in the lightpath. The lightpath includes a source optical node connected to a sink optical node via intermediate optical nodes. An optical signal introduced at the source node with a destination at the sink node may be looped back at any one of the intermediate nodes or the sink node to localize and identify a fault in the lightpath.